

## TEST REPORT

**CLIENT:**

Company:	Turf Distributors	Report Number:	79462F
Address:	42505 Rionedo Road	Lab Test Number:	3165-2285
	Temecula, CA 92590	Test Completion Date:	1/17/2020
		Report Date:	1/17/2020
Requested By:	Dillon Georgjan	Page:	1 of 1

**TEST MATERIAL:**

Material Type:	Synthetic Turf	Date Received:	12/31/2019
Material Condition:	EXCELLENT:    XXX    GOOD:    POOR:    REJECTED:		
Product Name:	Eco 59 Silver Hybrid		
Infill System:	2.0 lbs/ft <sup>2</sup> 20/40 silica sand (bottom layer) + 2.0 lbs/ft <sup>2</sup> 10/20 Ambient Sbr Rubber (top layer)		
SubBase:	3" #57 Stone		

**TESTING METHODS REQUESTED:**

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM F355a	Test Method:	Standard Test Method for Impact Attenuation of Playing Surface Systems and Materials

**SAMPLING PLAN:**

Sampling Date:	12/31/2019
<ul style="list-style-type: none"> <li>• Specimen sampling is performed in the sampling department at TSI.</li> <li>• The sampling size of specimens is determined by the test method requirements.</li> <li>• In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager.</li> <li>• All samples are subjected to the outside environmental conditions of temperature and relative humidity.</li> <li>• Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested</li> </ul>	

**DEVIATION FROM TEST METHOD:**

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

**TEST PROCEDURE:**

This test method determines cushioning properties of the playing surface system and materials under specific conditions. The playing surface tested is impacted at a specified velocity with a missile of given mass and geometry to determine the maximum value of g's encountered during impact. The missile, 9.1 kg (20 lbs), was released as to impact the center of the test assembly at a velocity of 3.43 meters/second at a drop height of 24". Three missile releases were made, with the first drop for assembly conditioning and the second and third drop used for averaging.

**TEST EQUIPMENT:**

Operating System:	TRIAX 2015 A Missile System TS GMAX 1 UNIT	Calibration: Dytran 6/12/2018 Missile # 30-10821 Handheld #: 30-10820
Missile Type, Weight:	(A) Cylindrical	
Missile Weight:	20 ± 0.11 lbs	
Missile Diameter:	Circular Face 20 ± 1.0 in <sup>2</sup>	
Drop Height:	24" (2 Feet) Guidance Thru Acrylic Tube, Bottom of Missile Face to Top of Turf Surface	

**TEST DATA:**

Test Conditions	68°F 32% RH
Test Date/Time	1/7/2020

Gmax/HIC Drop #1	Gmax/HIC Drop #2	Gmax/HIC Drop #3	Gmax/HIC Average
103 / 274	132 / 411	143 / 1455	Gmax: 138 HIC: 433

**Uncertainty:**

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available. TSI can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations sections of this report, all tests are performed in compliance with stated test method.

**Test Report Approval:**

Erle Miles, III, Lab Director Testing Services (TSI) LLC

TSI Accreditation: TSI is a certified independent testing laboratory by the Synthetic Turf Council

